12/22/2020

Addendum # 1 to Bid 002390
High Performance Cluster Grant Purchase

Change the above referenced Invitation to Bid to agree with this addendum.

This Addendum **must be signed and returned with bid submission.**

Budget total for project – $360,000

Section – "Attachment 1 – Detailed Scope" of the ITB is amended to reflect:

1. Intel Processors required.
2. Replace "Cluster Software" with "Cluster *Management* Software"

Cluster Management Software
A set of browser and CLI based tools specifically designed for administering and managing an HPC Linux cluster, which must include the following features:

- Latest version of CentOS
- Diskless image provisioning
- Node image provisioning
- Job queueing and scheduling
- Customizable dashboard
- Statistical Analysis of hardware monitoring to include IPMI/BMC, and GPU's
- Easy to use Web and Command Line interface
- Easy Updates
- Ability to diagram equipment position in the racks, and preferably also the ability to diagram the overall cluster topography and connectivity
- Software updates and support for the lifetime of the cluster

1. Will any cluster management software be needed?
A. Yes, per page 21

2. Does LSUHSC require only 1 large memory node?
A. Yes, just 1.

3. Does LSUHSC require only 1 GPU node?
A. Yes, just 1.

4. Does LSUHSC require 3 or 5 years support on the cooling?
A. Three years support minimum on all hardware and software. The complete quoted system shall not consume more than 6.45 tons of cooling as per the original ITB Page 21.

5. Can you provide Performance metrics for the filesystem?
A. Bulk Storage: Minimum 6 GB/s bandwidth. IOPS consistent with 60 x 12TB SAS drives, or better. Minimum 576 TB usable, with RAID.
Dual 10 Gbps Ethernet connectivity, minimum, to the bulk storage server.

6. Can you provide a list of applications and/or workloads which will be supported?
A. No

7. Can LSUHSC please provide some guidance regarding success criteria and acceptance criteria?
A. Success and acceptance is defined in the bid Part 1. Scope, Evaluation, Selection and Award

8. How large is the node image?
A. Up to 200% of the size of the latest revision of CentOS Linux OS/build that is suitable for clustering.

9. How much RAM is required for scratch, or will the BEEGFS be used as a shared scratch?
A. No RAM for scratch Is required. Part of the BEEGFS will be designated for scratch.

10. Is there a desired RAID level for the image servers and the management nodes?
A. RAID 1 for OS for both servers, using its two 480 GB disks. For remaining disks, LSUHSC will determine RAID level after delivery. RAID Controller for Image server must be capable of RAID 0, 1, 5, 6, 10, 50 and 60. Image Server requires hardware RAID. For the Management Node software RAID is permissible.

11. Can LSUHSC provide projected growth?
A. No

12. Can LSUHSC please elaborate on the request: “Ability to diagram the rack within the software”. (p22)
A. Cluster management software should provide at a minimum the capability of diagraming hardware as it is positioned in the racks, and preferably also a graphical summary of cluster topography and connectivity.

Supplier Signature: _____

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